

Amendments To The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1. (Presently Amended) An isolated or purified enzyme exhibiting nicotianamine synthase activity, wherein the enzyme is selected from:

(A) the polypeptide having an amino acid sequence of SEQ ID NO: 1; or

(B) ~~a polypeptide corresponding to SEQ ID NO: 1 in which at least one amino acid has been replaced by another amino acid residue, at least one amino acid in the sequence of SEQ ID NO: 1 has been deleted, or at least one additional amino acid has been inserted into the sequence of SEQ ID NO: 1~~ a polypeptide having more than 50% identity with an amino acid sequence of SEQ ID NO: 1 and comprising at least one consensus sequence of SEQ ID NO: 1 that is:

(1) ₂₅LPXLSPSPXVDRLFTXLVXACVPXSPVDVTKL₅₆;

(2) ₆₇LIRLCSXAEGXLEAHY₈₂;

(3) ₉₂PLDHLGXFPY₁₀₁;

(4) ₁₂₈VAFXGSGPLPFSS₁₄₀;

(5) ₁₉₉DVVFLAALVGM₂₀₉; or

(6) ₂₅₃RGGFXVLAVXHP₂₆₄;

wherein X is a variable amino acid residue.

2. (Previously presented) The enzyme according to claim 1, wherein said enzyme is isolated from barley.

3. (Presently Amended) The enzyme according to claim 12, wherein the enzyme ~~has an amino acid sequence shown in SEQ ID NO: 1, 3, 5, 7, 9, 11 or 13~~ comprises the consensus amino acid sequence of ₁₉₉DVVFLAALVGM₂₀₉.

4. (Previously presented) The enzyme according to claim 1, wherein said enzyme is isolated from Arabidopsis.
5. (Canceled)
6. (Presently Amended) The enzyme according to claim 1, wherein said enzyme is isolated ~~obtained~~ from Oryza sativa.
7. (Canceled)